



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,745	10/20/2003	Gordon Rouleau	13693-24US CMB/AA/mb	9250
20988	7590	05/04/2007		
OGILVY RENAULT LLP 1981 MCGILL COLLEGE AVENUE SUITE 1600 MONTREAL, QC H3A2Y3 CANADA			EXAMINER NAUROT TON, JOAN	
			ART UNIT 2109	PAPER NUMBER
			MAIL DATE 05/04/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/687,745	Applicant(s) ROULEAU, GORDON	
	Examiner Joan B. Naurot Ton	Art Unit 2109	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>07/20/2005 and 10/20/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 6 is objected to because of the following informalities:

On line 2 of claim 6, "an domain name server request" should be changed to –a domain name server request—.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 11, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Dunne et al (US patent number 5845091, issued on December 1, 1998).

Regarding claims 1 and 11:

Dunne discloses the system and the primary access device (Router 802 Primary, Figure 8 of the drawings) connecting a first network to a second network (Network A and Network B, Figure 8 of the drawings) over a primary connection ("default path", abstract, line 10, and Router 802 Primary, Figure 8 of the drawings), for a method for providing a backup connection ("another path" abstract, line 11, and Backup Router 803) between said first network and said second network, said method comprising ("method", abstract, line 1): detecting a failure in said primary connection (Since

Art Unit: 2109

Dunne's method checks for a "valid path" and either chooses the default path or another path, it detects failures); receiving, at said primary access device, a data packet originating from said first network and having a destination address at the ISO data link layer 2 (packet is received and then "data link layer processing" occurs, Figure 2 of the drawings, which inherently must also have a destination address at the ISO data link layer 2 because the ISO operates in such a way); replacing, in said data packet, said destination address with a backup access device data link address identifying a backup access device capable of providing said backup connection (the "entry" for the path is replaced "as indicated by another entry" for a backup device which is the Backup Router 803, figure 8 of the drawings. Figure 6 shows the datalink address that Dunne is improving upon in his invention, and Figure 7 shows the Destination IP address that Dunne is improving upon to perform the "Data Link Layer Processing" 905 of Figure 9 of the drawings. Figure 10 shows that the packet is sent according to the path that the data packet gets from the forwarding list which has the address to be replaced.) abstract, lines 10-13; whereby said replacing of said destination address with said backup access device data link address enables a transmittal of said received data packet to said second network over said backup connection. (With respect to the primary router 802 and the backup router 803, "The purpose of redundancy is to provide fault tolerance should the primary path fail." Column 4 of the specification, lines 43-44. Thus the entry replacement of the destination address enable transmittal of data from "Network A" to "Network B". Figure 8 of the drawings.)

Regarding claim 14:

Dunne also discloses the system wherein said second network is a wide area network (WAN) (Dunne discloses that "each of networks 1206-1208 are located in a different portion of the world." Column 5 of the specification, lines 57-59. Dunne also discloses routers 802, 803, and 804 connected to network A and B which constitute a system, Figure 8 of the drawings.)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-5, 7, 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunne in view of Liping Zhang (US Patent number 6108345, dated August 22, 2000).

Regarding claims 2 and 13:

Dunne discloses all the limitations as disclosed above except for the limitations of the method and system, wherein said first network is a local area network (LAN).

The general concept of using a first network as a LAN is well known in the art as illustrated by Liping Zhang who discloses a LAN connected to another network. (Column 4 of the specification, lines 65-66. Dunne also discloses routers 802, 803, and 804 connected to network A and B which constitute a system, Figure 8 of the drawings.)

It would have been obvious for one of ordinary skill in the art at the time of the invention to include the use of a LAN as the first network in his advantageous method as taught by Liping Zhang in order to provide for "connecting of networks" as stated by Liping Zhang on line 1 of his abstract.

Regarding claim 3:

Dunne also discloses the method wherein said second network is a wide area network (WAN) (Dunne discloses that "each of networks 1206-1208 are located in a different portion of the world." Column 5 of the specification, lines 57-59.

Regarding claim 4:

Dunne discloses all the limitations except for wherein said local area network is an Ethernet-like network.

Liping Zhang discloses the method wherein said local area network is an Ethernet-like network. ("LAN 90 and 92 are running a fast Ethernet protocol..." Column 5 of the specification, lines 65-66.)

The general concept of providing an Ethernet-like network is well known in the art as illustrated by Liping Zhang which discloses an Ethernet-like network in a method which connects networks. It would have been obvious for one of ordinary skill in the art at the time of the invention to include the use of an Ethernet-like network as a first network to be connected to another network in his advantageous method as taught by Liping Zhang in order to provide for "connecting of networks" as stated by Liping Zhang on line 1 of his abstract.

Regarding claim 5:

Dunne also discloses the method, wherein said wide area network is an IP-based network. (Dunne discloses that his method "typically performed according to a network layer protocol such as the internet protocol." Column 3 of the specification, lines 12-13.)

Regarding claim 7:

Dunne also discloses the method, further comprising performing an ARP request and further wherein said backup access device datalink address is provided by said backup access device in response to said ARP request. (Dunne uses an "ARP request" which he sends to the routers to reestablish a valid path. Column 5 of the specification, lines 11-15. In Figure 6 of the drawings Dunne discloses the datalink address "Destination MAC address 615", and discloses its use in his method in Column 4, lines 14-16)

Regarding claim 10:

Dunne discloses the ISO layer 2 data link layer processing in Figure 9 of the drawings which requires a connection, and also discloses the OSI model in Column 2 of the specification, line 65, which was developed by the ISO. Dunne also discloses that his destination address is replaced with the backup access device address because he uses a forwarding list full of valid addresses which include the backup address to determine the path that the data will take. Figures 8 and 10 of the drawings.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dunne and Liping Zhang as applied to claim 5, and further in view of Coile et al, hereinafter referred to as Coile, (US patent number 6298063, dated October 2, 2001)

Regarding claim 6:

Dunne discloses all the limitations of claim 6 except for the method, wherein said data packet is a domain name server request.

Coile teaches a domain name server request with a data packet. Since Coile uses TCP/IP, (Column 4 of the specification, line 38) the request to the domain name server (Column 5, lines 7-11) comes in the form of a data packet.

The general concept of providing a domain name server request in the form of a data packet is well known in the art as illustrated by Coile which discloses a packet in a domain name server request.

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Dunne to include the use of a data packet domain name server request as taught by Coile in order to allow the system and method for the capability of "providing backup ...machines" as stated by Coile in Column 1 of the specification, lines 25-26.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dunne and Liping Zhang as applied to claim 5, further in view of Jayasenana et al (US patent number 7042876, dated May 9, 2006, and filed on December 11, 2000), hereinafter referred to as Jayasenana.

Dunne discloses all the limitations of claim 9 except for the method step wherein said backup access device IP network station address is provided to said primary access device at a predetermined time.

Jayasenan teaches a backup access device providing an IP network station address to the primary access device. ("An alternative implementation is that the standby appliance is notified of the change and a request is sent from the standby appliance to the primary appliance to retrieve the new set of parameters". Column 6, lines 35-38. Jayasenan also discloses that his implementation causes the address of the standby appliance to be identical to the primary address after notification of the shutdown, Abstract, last 7 lines, so the address of the backup device is known by the primary access device before the device fails, or at a predetermined time. Since Jayasenan uses Fibrechannel and IP (Column 3, line 60), he also discloses that the device has an IP network station address.

The general concept of providing a backup access device IP network station address to a primary device is well known in the art as illustrated by Jayasenan which discloses an address being provided to a primary access device.

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Dunne in his advantageous method to include providing an address to a primary device at a predetermined time as taught by Jayasenan in order to provide "fail over" as stated by Jayasenan in Column 1, line 17 of the specification.

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dunne in view of Menditto et al (US patent number 6968389, dated November 22, 2005 and filed on July 17, 2001), hereinafter referred to as Menditto.

Regarding claim 12:

Dunne discloses all of the limitations of claim 12 except for wherein said primary

Art Unit: 2109

access device and said backup access device are connected using an Ethernet network.

Menditto teaches connecting a backup device to a primary device using Ethernet. ("Content gateway processor 30 is connected to content gateway router 28 via a fast high capacity connection (e.g. gigabit Ethernet)." Column 6 of the specification, lines 8-10, and "In general, there may be more than one content gateway processor 30", Column 6 of the specification, lines 12-13; thus the two are connected by Ethernet.

The general concept of connecting a backup device and a primary device by Ethernet is well known in the art as illustrated by Menditto who discloses an Ethernet connection in between a backup device and a primary device.

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Dunne to include connecting his backup device and primary device by Ethernet in his advantageous method as taught by Menditto in order to "provide redundancy, fail over characteristics, and extra capacity" as stated by Menditto in Column 6, lines 14-15.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dunne and Liping Zhang as applied to claim 5 above, and further in view of Menditto and Cochran (US patent number 7058850, dated June 6, 2006, and filed on July 31, 2002).

Regarding claim 9:

Dunne discloses all the limitations of claim 9 except for wherein said primary access device comprises domain name server relay and cache service, further

comprising emptying said cache after said detecting of said failure in said primary connection.

Menditto discloses domain name server relay (Abstract, line 4) and cache service (Column 11, lines 64-67, describes cache service because Menditto discloses "When the connection list becomes full, the current connection may be saved by removing the least recently used connection in the connection list.")

The general concept of providing domain name server relay and cache service is well known in the art as illustrated by Menditto which discloses cache service and domain name server relay in a router method.

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Dunne of in his advantageous method as taught by Menditto in "provide redundancy, fail over characteristics, and extra capacity" as stated by Menditto in Column 6, lines 14-15.

Cochran discloses emptying a cache after detecting a failure in a primary connection. ("a Write request 0/301 has failed to arrive at the second mass-storage device due to an error within the communications link, or in the communications-link related drivers or protocol engines..." Column 13 of the specification, lines 23-26. This results in "...initiating the bit map and cache purge operations..." Column 13 of the specification, lines 42 and 43.)

The general concept of purging a cache after device failure is well known in the art as illustrated by Cochran who discloses purging a cache in a communications link method. It would have been obvious for one of ordinary skill in the art at the time of the

invention to modify Cochran to include the use of purging a cache in response to device failure in order to prevent "failures that interrupt data flow" as stated by Cochran in Column 1 of the specification, lines 11-12.

10. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dunne in view of Shujin Zhang et al (US patent number 6324585 dated November 27, 2001), hereinafter referred to as Shujin Zhang.

Regarding claim 15:

Dunne discloses all the limitations of claim 15 except for having the primary access device comprise a domain name server relay .

Shujin Zhang discloses domain name server relay ("forwarding the DNS request to the first matching accessible network. Abstract, lines 12-13) using a primary connection (Column 2 of the specification, line 34), which means he is using a primary access device.

The general concept of having a primary access device further comprising domain name server relay is well known in the art as illustrated by Shujin Zhang who discloses domain name server relay in a primary access device.

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Dunne of his advantageous method to include domain name server relay in his primary access device as taught by Shujin Zhang in order for users to be able to "send and receive information with other users on the Internet in a seamless manner..." as stated by Shujin Zhang in Column 1 of the specification, lines 31-32.

Art Unit: 2109

11. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dunne in view of Meyerson (US patent number 6941356, dated September 6, 2005, filed on June 29, 2001).

Regarding claim 16:

Dunne discloses all the limitations of claim 16 except for wherein said primary access device further comprises a DHCP server.

Meyerson discloses a primary device (line 46, Column 9) which is capable of communicating (Claim 1), hence it is a primary access device, which uses a DHCP server Column 9, line 46.

The general concept of providing a primary access device with a DHCP server is well known in the art as illustrated by Meyerson who discloses a primary access device with a DHCP server.

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Dunne of his advantageous method to include the use of a DHCP server with a primary access device as taught by Meyerson in order to provide the ability for "a primary device actively looking for secondary devices with which to interface" as stated by Meyerson in Column 1 of the specification, lines 53-54.

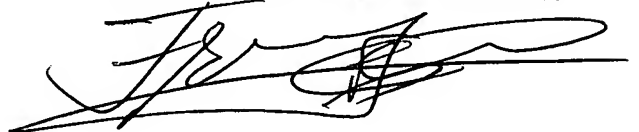
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joan B. Naurot Ton whose telephone number is 571-270-1595. The examiner can normally be reached on M-Th 9 to 6:30 (flex sched) and alt Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Jules can be reached on 571-272-6681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JBNT
4/26/2007

FRANTZ JULES
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read 'Frantz Jules', is written over a horizontal line.

Application/Control Number: 10/687,745

Page 14

Art Unit: 2109